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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/544,105	08/02/2005	Thorsten Hillesheim	48792	7763
1609	7590	10/15/2007		
ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			EXAMINER PRICE, CRAIG JAMES	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 10/15/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/544,105

Applicant(s)

HILLESHEIM ET AL.

Examiner

Craig Price

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/2/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because the drawings are unclear as the photocopy prints do not provide a clear representation of the invention. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. **Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).** If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the disk pack and hydraulically actuatable couplings (claim 10) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. **Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).** If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2,5 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation in claim 2, "by preference a screen with a protective screen connected upstream and/or diffuser" is unclear. Does the limitation require the screen or diffuser? The limitation in claim 5, "damping screen", is unclear. Is this a filter screen or a restrictor to dampen the flow of the spool? The limitation in claim 10 "disk pack" is not described in the manner as disclosed as to what this structure is. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1- 7 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Harms et al. (5,836,335).

Harms et al. disclose a proportional pressure control valve with a valve housing (20) having at least three fluid-conducting connections, in particular in the form of a pump (26/84), a utility (34), and a tank (32) port, it being possible to displace longitudinally inside the valve housing, for the purpose of optional connection of the pump port to the utility port and connection of the utility port to the tank port. A control piston (112) which is provided for establishment of a fluid-conducting connection between the pump port and a servo chamber (within 152) of a pilot valve (228) with a connecting channel (surrounding reference number 142), the pilot valve being actuatable by a magnet system (252,254), a proportional magnet system in particular, characterized in that, when the pilot valve has been opened, such pilot valve (22) opens the fluid-conducting path (below the oring connecting the solenoid adapter to the housing, leading into 192 and then into 124) leading partly through the valve housing between the connecting channel and the tank port, which is simultaneously connected to the utility port so as to conduct fluid as shown in figure 2.

Regarding claim 2, Harms et al. disclose that the connecting channel has a

screen (142), by preference a screen with a protective screen connected upstream and/or a diffuser (142) connected downstream, in the direction of the servo chamber of the pilot valve as shown in figure 2.

Regarding claim 3, Harms et al. disclose that the servo chamber is part of a valve seat mounted in the valve housing so as to be stationary, which valve seat is connected to the servo chamber so as to conduct fluid and may be moved into contact with a valve component (228) of the pilot valve so as to effect closing, which valve component of the pilot valve may be moved by the force of a spring (within 232) to its closed position in the direction of the servo chamber as shown in figure 2.

Regarding claim 4, Harms et al. disclose that the control piston delimits, on its one end facing away from the servo chamber together with the valve housing, a damping chamber (118) in which a force accumulator, in particular one in the form of a pressure spring (the spring within 118), tends to displace the control piston in the direction of the servo chamber as shown in figure 2.

Regarding claim 5, Harms et al. disclose the screen, which is being read as a restrictor or orifice, located in the bore between chambers 118 and 124 in figure 2.

Regarding claim 6, Harms et al. disclose that the damping chamber (118) is enclosed by the valve housing and on one of its sides by the control piston (112) and on its opposite side by a lift stop (92) for the control piston, which closes of the valve housing from the exterior on its one free side as shown in figure 2.

Regarding claim 7, Harms et al. disclose that the pilot valve is configured as a proportional pressure control valve.

Regarding claim 10, Harms et al. disclose that the valve is configured "for hydraulically actuatable couplings in which a cylinder space of the couplings is to be connected to a hydraulic pump by way of the valve for the purpose of compression of a disk pack" the intended use recitation of this claim does not provide any additional structure to the invention. The valve of Harms et al. therefore meets this intended use recitation, as the port to the utility certainly supplies a hydraulic pump area as disclosed in (Col.20, Lns. 60-64).

6. Claims 1,3,4 and 6 - 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfges (DE 19504886 C2).

Wolfges discloses a proportional pressure control valve with a valve housing (6) having at least three fluid-conducting connections, in particular in the form of a pump (P), a utility (A), and a tank (T) port, it being possible to displace longitudinally inside the valve housing, for the purpose of optional connection of the pump port to the utility port and connection of the utility port to the tank port. A control piston (10) which is provided for establishment of a fluid-conducting connection between the pump port and a servo chamber (52) of a pilot valve (60) with a connecting channel (38,42), the pilot valve being actuatable by a magnet system (80), a proportional magnet system in particular, characterized in that, when the pilot valve has been opened, such pilot valve opens the fluid-conducting path (the separate bore offset to the right of the piston) leading partly through the valve housing between the connecting channel and the tank port, which is simultaneously connected to the utility port so as to conduct fluid as shown in figures 1 and 2.

Regarding claim 3, Wolfges discloses that the servo chamber is part of a valve seat mounted in the valve housing so as to be stationary, which valve seat is connected to the servo chamber so as to conduct fluid and may be moved into contact with a valve component (the tapered angle of 60) of the pilot valve so as to effect closing, which valve component of the pilot valve may be moved by the force of a spring (one of the two springs shown) to its closed position in the direction of the servo chamber as shown in figure 2.

Regarding claim 4, Wolfges discloses that the control piston delimits, on its one end facing away from the servo chamber together with the valve housing, a damping chamber (around 35a) in which a force accumulator, in particular one in the form of a pressure spring (the spring 18), tends to displace the control piston in the direction of the servo chamber as shown in figure 1.

Regarding claim 6, Wolfges discloses that the damping chamber is enclosed by the valve housing and on one of its sides by the control piston and on its opposite side by a lift stop (12) for the control piston, which closes off the valve housing from the exterior on its one free side as shown in figure 1.

Regarding claim 7, Wolfges discloses that the pilot valve is configured as a proportional pressure control valve.

Regarding claim 8, Wolfges discloses that the valve component of the pilot valve is conducted between two force accumulators in the form of pressure springs (the two springs shown have two separate coil sizes) so as to be movable longitudinally in a guide component (64) which is mounted so as to be stationary and with the valve seat )



adjoins a distribution compartment (surrounding 60) to which the fluid-conducting path is permanently connected as shown in figure 1.

Regarding claim 9, Wolfges discloses that all fluid-conducting ports (A, P, T) extend through the valve housing in the radial direction as shown in figures 1 and 2.

Regarding claim 10, Wolfges disclose that the valve is configured "for hydraulically actuatable couplings in which a cylinder space of the couplings is to be connected to a hydraulic pump by way of the valve for the purpose of compression of a disk pack" the intended use recitation of this claim does not provide any additional structure to the invention. The valve of Wolfges therefore meets this intended use recitation, as the port to the utility certainly supplies a hydraulic pump area.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Janecke (4,576,200), Bartholomaeus (4,491,153), Aronivich (5,299,600), Arndt (5,913,577), Cords et al. (5,857,479), Najmolhoda et al. (6,233,761), Baldauf et al. (5,894,860), Wolfges (4,590,968), Takayama (3,856,047), Worden et al. (3,181,560) and Neuhaus (6,578,606) et al. all disclose similar valves.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Price whose telephone number is (571) 272-2712. The examiner can normally be reached on 7AM - 5:30PM Mon-Thurs, Increased flex time.

Art Unit: 3753

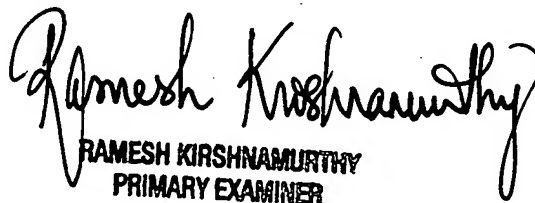
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CP



10 October 2007



**RAMESH KIRSHNAMURTHY**  
**PRIMARY EXAMINER**